



# PUBLIC NOTICE

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**WIRELESS TELECOMMUNICATIONS BUREAU, PUBLIC SAFETY AND HOMELAND SECURITY BUREAU, AND OFFICE OF ENGINEERING AND TECHNOLOGY PROVIDE REMINDER OF JANUARY 1, 2013 DEADLINE FOR TRANSITION TO NARROWBAND OPERATIONS IN THE 150-174 MHz AND 421-470 MHz BANDS**

This *Public Notice* reminds licensees, frequency coordinators, equipment vendors, and other interested parties of the Federal Communications Commission's January 1, 2013 deadline for private land mobile radio (PLMR) services in the 150-174 MHz and 421-470 MHz (VHF/UHF) bands to migrate to narrowband (12.5 kHz or narrower) technology.<sup>1</sup>

**Key Narrowbanding Deadlines**

*Licensees and frequency coordinators* should be aware that

(1) as of **January 1, 2011**, the Commission cut off acceptance of VHF/UHF applications for:

- new wideband operations (*i.e.*, operations with only one voice path per 25 kHz of spectrum); and
- modification of existing wideband 25 kHz stations that expand the authorized interference contour (19 dBu VHF, 21 dBu UHF); and

<sup>1</sup> See Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Second Report and Order and Second Further Notice of Proposed Rulemaking*, WT Docket No. 99-87, RM-9332, 18 FCC Rcd 3034 (2003) (*Second R&O*); Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Third Memorandum Opinion and Order, Third Further Notice of Proposed Rule Making and Order*, WT Docket No. 99-87, RM-9332, 19 FCC Rcd 25045 (2004) (*Third MO&O*); Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Order*, WT Docket No. 99-87, RM-9332, 25 FCC Rcd 8861 (2010) (*Narrowbanding Waiver Order*); *see also* 47 C.F.R. §§ 90.203(j), 90.209(b). Specifically, the narrowbanding deadlines apply to frequencies in the 150.8-162.0125 MHz, 173.2-173.4 MHz, and 421-512 MHz bands, but the Wireless Telecommunications Bureau, Public Safety and Homeland Security Bureau, and Office of Engineering and Technology have waived the January 1, 2013 deadline for PLMR licensees in the 470-512 MHz band. *See* Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Order*, WT Docket No. 99-87, RM-9332, 27 FCC Rcd 4213 (WTB/PSHSB/OET 2012). Narrowbanding in the 150.05-150.8 MHz, 162-174 MHz, and 406.1-420 MHz bands, which are allocated primarily for Federal Government use, is governed by a different schedule. *See* Amendment of Parts 2 and 90 of the Commission's Rules to Provide for Narrowband Private Land Mobile Radio Channels in the 150.05-150.8 MHz, 162-174 MHz, and 406.1-420 MHz Bands that Are Allocated for Federal Government Use, *Report and Order*, ET Docket No. 04-243, 20 FCC Rcd 5793 (2005); 47 C.F.R. § 90.265. Similarly, the narrowbanding requirements for 700 MHz public safety narrowband systems are subject to a different schedule, and are not affected by this proceeding. *See* 47 C.F.R. §§ 90.203(m), (n), 90.535.

(2) by **January 1, 2013**, all VHF/UHF Industrial/Business and Public Safety Radio Pool licensees must:

- operate on 12.5 kHz (11.25 kHz occupied bandwidth) or narrower channels; or
- employ a technology that achieves the narrowband equivalent of at least one channel per 12.5 kHz of channel bandwidth for voice, and data transmission rates of at least 4800 bits per second per 6.25 kHz for systems operating with bandwidths greater than 12.5 kHz (narrowband-equivalent technology).

*Equipment manufacturers* should be aware that, as of **January 1, 2011**, the Commission cut off certification of 150-174 MHz or 421-470 MHz band equipment capable of operating with only one voice path per 25 kHz of spectrum.<sup>2</sup> Providers may manufacture and import previously-certified equipment that includes a 25 kHz mode until January 1, 2013,<sup>3</sup> and wideband-capable equipment that was manufactured or imported prior to that date may continue to be sold after January 1, 2013.

### **Additional Narrowbanding Information**

Below we provide information about the narrowbanding transition in response to questions that have been raised by interested parties. Additional information concerning narrowbanding migration and compliance, including other frequently asked questions, is available at the Commission's narrowbanding webpage, <http://www.fcc.gov/encyclopedia/narrowbanding-overview>, which is updated regularly.<sup>4</sup>

#### **Narrowbanding modification applications**

A “straight” narrowbanding modification application requires neither frequency coordination (pursuant to Section 90.175(j)(20) of the Commission’s Rules, 47 C.F.R. § 90.175(j)(20)) nor payment of Commission fees (pursuant to Section 1.1116(a) of the Commission’s Rules, 47 C.F.R. § 1.1116(a)). A straight narrowbanding modification application is an application to modify a license by deleting a wideband emission designator (occupied bandwidth in excess of 11.25 kHz) or adding one or more narrowband emission designators to, or in place of, a wideband emission designator – but not changing the existing frequencies, emission types (the last three characters of the emission designator), locations, or other technical parameters of the license.<sup>5</sup> An application that reduces the occupied bandwidth but also alters other technical parameters, such as changing from analog to digital emissions, is not a straight narrowbanding modification application and requires both frequency coordination and payment of Commission fees.

Modification applications to demonstrate compliance with the narrowbanding mandate should be received by the Commission prior to the January 1, 2013 deadline. Narrowbanding-compliant systems may operate after January 1, 2013 if an application is on file with the Commission by that date and

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<sup>2</sup> See Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Order on Reconsideration*, WT Docket No. 99-87, RM-9332, DA 12-1743 (WTB/PSHSB/OET rel. Nov. 30, 2012).

<sup>3</sup> See *Narrowbanding Waiver Order*, 25 FCC Rcd at 8864 ¶ 8.

<sup>4</sup> Some issues relating to narrowbanding and equipment authorization are addressed in OET Knowledge Database Publication 579009, <https://apps.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?id=20292&switch=P>.

<sup>5</sup> Applicants should modify the emission designator for the existing frequency assignment(s), rather than modify the license by adding a “new” frequency that duplicates an existing frequency in all respects other than occupied bandwidth. Adding a “new” frequency will result in ULS assigning a new construction deadline.

modifications require only a reduction in bandwidth of the authorized emission designators. If a licensee files an application to modify the existing emission designator to change it from a wideband designator to a narrowband designator, the licensee must begin operating on the narrowband frequencies no later than the date that the Commission grants the narrowbanding application. If a licensee adds a narrowband emission designator but retains the wideband emission designator, the licensee has until the narrowbanding deadline of January 1, 2013, to begin operating on the narrowband frequencies.

### **Waivers of the narrowbanding deadline**

The Wireless Telecommunications Bureau, Public Safety and Homeland Security Bureau, and Office of Engineering and Technology have issued guidance for submission of requests for waiver of the January 1, 2013 narrowbanding deadline.<sup>6</sup> While there is no set date after which waiver requests will no longer be accepted, we recommend that licensees that anticipate the need for additional time to complete the narrowbanding of their systems submit their requests as far in advance of the deadline as possible. In addition, licensees should expect later-filed waiver requests to be granted for shorter periods than earlier-filed requests, and should plan accordingly.

### **Exceptions to the January 1, 2013 deadline**

The following paging frequencies are exempt from the narrowbanding requirement: 152.0075 and 157.4500 MHz in the Public Safety Pool<sup>7</sup> (note: frequency 163.250 MHz is *not* exempt from narrowbanding<sup>8</sup>), and 152.480, 157.740, 158.460, 462.750, 462.775, 462.800, 462.825, 462.850, 462.875, 462.900, 462.925, and 465.000 MHz in the Industrial/Business Pool.<sup>9</sup> Stations that operate on both exempt and non-exempt frequencies must narrowband the non-exempt frequencies.

The only exception from the PLMR narrowbanding deadline for Part 90 stations that operate below a certain power level is for stations with an output power not exceeding 120 milliwatts.<sup>10</sup> In particular, we note that no blanket exception to or waiver of the narrowbanding deadline has been granted for law enforcement surveillance radios or wireless clock synchronization systems.

### **Repairing or replacing wideband equipment**

The Commission's rules do not prohibit the sale after January 1, 2013 of wideband-capable Part 90 VHF/UHF equipment that was manufactured or imported prior to that date, and service shops are not prohibited from repairing wideband-capable equipment after that date. It is in all parties' best interests, however, for vendors and technicians to assist licensees in complying with the rules by informing

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<sup>6</sup> See Wireless Telecommunications Bureau, Public Safety and Homeland Security Bureau, and Office of Engineering and Technology Provide Reminder of January 1, 2013 Deadline for Transition to Narrowband Operations in the 150-174 MHz and 421-512 MHz Bands and Guidance for Submission of Requests for Waiver and Other Matters, *Public Notice*, 26 FCC Rcd 9647 (WTB/PSHSB/OET 2011); Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau Provide Supplemental Guidance for Licensees in the 150-174 MHz and 470-512 MHz Bands Seeking Waivers of the January 1, 2013 Narrowbanding Deadline, *Public Notice*, 27 FCC Rcd 1936 (WTB/PSHSB 2012).

<sup>7</sup> See 47 C.F.R. § 90.20(d)(30).

<sup>8</sup> See 47 C.F.R. § 90.265(e)(1)(iv).

<sup>9</sup> See 47 C.F.R. § 90.35(c)(29).

<sup>10</sup> See 47 C.F.R. § 90.217.

customers that the equipment may not be operated in wideband mode after January 1, 2013 without an applicable waiver or exception.

### **Potential consequences of failing to narrowband by January 1, 2013**

As of January 1, 2013, the Commission's rules will prohibit Industrial/Business and Public Safety Radio Pool licensees in the 150-174 MHz and 421-512 MHz bands from operating with wideband channels (unless their equipment meets the narrowband efficiency standard), even if the license still lists a wideband emission designator. Licensees operating in wideband mode after January 1, 2013 that have not received a waiver from the Commission extending the deadline will be in violation of these rules. Operation in violation of the Commission's rules may subject licensees to appropriate enforcement action, including admonishments, license revocation, and/or monetary forfeitures of up to \$16,000 for each such violation or each day of a continuing violation and up to \$112,500 for any single act or failure to act.<sup>11</sup>

In addition, the Land Mobile Communications Council, which includes every Commission-certified frequency coordinator, has informed the Commission that effective February 1, 2013, frequency coordinators will treat incumbent non-compliant 25 kHz systems as 12.5 kHz systems for purposes of identifying frequency assignments for use with land mobile systems, pursuant to Section 90.187<sup>12</sup> and other applicable Commission rules, absent a pending modification application evidencing narrowbanding compliance or a pending or granted request for waiver of the January 1, 2013 deadline.<sup>13</sup>

Seasonal operators like golf courses and beach patrols that do not use their radio equipment over the winter months are not required to implement narrowband technology before January 1, 2013, but must complete the conversion to narrowband operation prior to resuming use of their Part 90 VHF/UHF radios later in the year.

### **Equipment certification**

*Minimum bit rate.* Beginning January 1, 2013, equipment approval applications for Part 90 VHF/UHF equipment that is capable of transmitting data, has transmitter output power greater than 500 milliwatts, and has a channel bandwidth of more than 6.25 kHz will be granted only if the equipment supports a minimum data rate of 4800 bits per second per 6.25 kHz of channel bandwidth.<sup>14</sup> This means that the equipment cannot be capable of operating with a data rate of less than 4800 bits per second per 6.25 kHz of channel bandwidth, rather than simply requiring that the equipment be capable of reaching that data rate. Equipment with slower data rates may be approved on a case-by-case basis if a technical analysis is submitted with the equipment approval application that describes why the slower data rate will provide more spectral efficiency than the standard data rate.<sup>15</sup>

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<sup>11</sup> See Enforcement Bureau Reminds Private Land Mobile Licensees and Equipment Manufacturers of the January 1, 2013 Deadline for Transitioning to Narrowband Technology, *Public Notice*, DA 12-1386 (EB rel. Aug. 22, 2012).

<sup>12</sup> 47 C.F.R. § 90.187.

<sup>13</sup> See Letter dated May 21, 2012 from Douglas M. Aiken, President, Land Mobile Communications Council to David Furth, Acting Bureau Chief, Public Safety and Homeland Security Bureau and Rick Kaplan, Bureau Chief, Wireless Telecommunications Bureau, filed in WT Docket No. 99-87.

<sup>14</sup> See 47 C.F.R. 90.203(j)(5); *Narrowbanding Waiver Order*, 25 FCC Rcd at 8865-66 ¶ 11.

<sup>15</sup> See 47 C.F.R. § 90.203(j)(8).

*Dual use equipment.* Many land mobile radios are capable of operating in the 420-450 MHz amateur band as well as the Part 90 private land mobile bands.<sup>16</sup> Such dual-use equipment must be certified under Part 90 and comply with the narrowbanding rules in the 421-430 MHz, 450-470 MHz, and 470-512 MHz PLMR bands.<sup>17</sup> Dual-use radios may operate in wideband mode in the 430-450 MHz portion of the amateur band (*i.e.*, frequencies not available for Part 90 use).<sup>18</sup>

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For further information, licensees and frequency coordinators may contact Mr. Melvin Spann of the Wireless Telecommunications Bureau, Mobility Division, (202) 418-1333, [Melvin.Spann@fcc.gov](mailto:Melvin.Spann@fcc.gov), or Mr. Roberto Mussenden of the Public Safety and Homeland Security Bureau, Policy Division, (202) 418-1428, [Roberto.Mussenden@fcc.gov](mailto:Roberto.Mussenden@fcc.gov). Equipment manufacturers may contact Mr. Andy Leimer of the Office of Engineering and Technology, (301) 362-3049, [Andrew.Leimer@fcc.gov](mailto:Andrew.Leimer@fcc.gov).

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<sup>16</sup> See 47 C.F.R. § 97.303(b). The frequency band 420-450 MHz is allocated on a secondary basis for amateur radio under Part 97 of the Commission's rules.

<sup>17</sup> See 47 C.F.R. § 90.203(j)(4).

<sup>18</sup> Equipment approval generally is not required for Part 97 equipment. *See, e.g.*, New Generation Hobbies, *Citation*, 26 FCC Rcd 9468, 9471 n.23 (EB SED 2011) (“while amateur radio service equipment is exempt from the FCC's equipment certification requirement, it is a violation of the Commission's regulations to market in the United States a transmitter that is designed or intended to operate on frequencies outside of the authorized amateur radio service bands if such equipment has not been issued a grant of equipment certification”).